

WHAT IS CLAIMED IS :

Sub 8)

1. A receiver comprising: demodulation means for demodulating a PSK modulated signal of digital signals modulated by a plurality of PSK modulation method having different numbers of phases and multiplexed in time, by using carriers (f_{c1} and f_{c2}) reproduced by carrier reproduction means, and outputting I and Q symbol stream data (I(8), Q(8)); reception signal phase rotation angle detection means for detecting a phase rotation angle relative to a transmission side of the I and Q symbol stream data output from said demodulation means; and inverse phase rotation means (7) for inversely rotating a phase of the I and Q symbol stream data output from said demodulation means by a phase rotation angle (OR(3)) detected by said reception signal phase rotation angle detection means, wherein the carrier reproduction means of said reproduction means has phase error tables (13, 14-1, 15-1) for respective modulation methods, the tables storing carrier phase error data for various demodulated I and Q symbol stream data pairs, and while said demodulation means demodulates a reception signal corresponding to each of the modulation methods, phase error data ($\Delta\Phi(8)$) corresponding to the demodulated I and Q symbol stream data is read from the phase error table corresponding to the modulation method to correct the phase of the carriers, the receiver being characterized in that:

while said demodulation means (1C, 1D) demodulates the reception signal corresponding to each of the modulation methods,

the carrier reproduction means (10C, 10D) reads the phase error data corresponding to demodulated I and Q symbol stream data ($I'(8)$, $Q'(8)$) output from said inverse phase rotation means from the phase error table corresponding to the modulation method to correct the phase of the carriers.

2. A receiver comprising: demodulation means for demodulating a PSK modulated signal of digital signals modulated by a plurality of PSK modulation method having different numbers of phases and multiplexed in time, by using carriers (f_{c1} and f_{c2}) reproduced by carrier reproduction means, and outputting I and Q symbol stream data ($I(8)$, $Q(8)$); reception signal phase rotation angle detection means for detecting a phase rotation angle relative to a transmission side of the I and Q symbol stream data output from said demodulation means; and inverse phase rotation means (7) for inversely rotating a phase of the I and Q symbol stream data output from said demodulation means by a phase rotation angle ($\theta(3)$) detected by said reception signal phase rotation angle detection means, wherein the carrier reproduction means of said reproduction means has phase error tables (13, 14-1, 15-1) for respective modulation methods, the tables storing carrier phase error data for various demodulated I and Q symbol stream data pairs, and while said demodulation means demodulates a reception signal corresponding to each of the modulation methods, phase error data ($\Delta\Phi(8)$) corresponding to the demodulated I and Q symbol stream

data is read from the phase error table corresponding to the modulation method to correct the phase of the carriers, the receiver being characterized in that:

while said demodulation means (1E, 1F) demodulates the
5 reception signal corresponding to each of the modulation methods,
the carrier reproduction means (10C, 10D) reads the phase error
data corresponding to demodulated I and Q symbol stream data (I'(8),
Q'(8)) output from said inverse phase rotation means and the phase
error data corresponding to a selected one of either the I or Q symbol
10 stream data (I(8) or (Q(8) output from said demodulation means,
from the phase error table corresponding to the modulation method
to correct the phase of the carriers.